UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,485	09/02/2003	Makoto Okada	21.1886C	2320

21171	7590	05/18/2005

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EXAMINER
LAO, SUE X

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/652,485	OKADA ET AL.
	Examiner	Art Unit	
	Sue Lao	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some *   c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____ .

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/2/2003*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2.   Claims 1-6 are presented for examination. This application is a continuation of application No. 09/126,324, now U S patent 6,622,143.

3.   The drawings are objected to under 37 CFR 1.83(a). Figure 22 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP. 608.02(g). Appropriate correction is required

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claim 2-4, 6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The language of independent claim 2 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Independent claim 2 does not appear to require any computer hardware to implement the claimed invention. The claim appears to define the metes and bounds of an invention comprised of software alone. There is no support (i.e., explicitly claimed

computer hardware) in the body of the claims. Software alone, without a machine, is incapable of transforming any physical subject matter by chemical, electrical, or mechanical acts. If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. In re Schrader, 22 F.3d 290 at 294-95, 30 USPQ2d 1455 at 1458-59 (Fed. Cir. 1994). Transformation of data by a machine constitutes statutory subject matter if the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106. State Street required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, State Street does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. State Street, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claims 2-4, 6 are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of software alone without claiming associated computer hardware required for execution, is not supported by either a specific and substantial asserted utility (i.e., transformation of data) or a well established utility (i.e., a practical application).

6.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-4, 6 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4, 6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are computer hardware necessary to execute the claimed software and render the invention operative.

8.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9.   Claims 1-6 are rejected under the judicially created doctrine of obviousness - type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,622,143. Although the conflicting claims are not identical, they are not patentably distinct from each other. In particular, first set of reactions / second set of reactions is

met by the reaction table of claims 1 and 12; shared communication path is met by common communication path of claim 5; operation types and parameter are met respectively by types and parameters of claims 2, 18, for example.

10.   The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to adequately teach the claimed limitations "indicia of one of a plurality of operations available for performance on the first computer", "indicia of one of a plurality of operations available for performance on the second computer" and "indicia of the one or more performed operations" as recited in claim 1.

In the application as filed (which is a continuation of application No. 09/126,324), there does not appear to be any detailed descriptions or disclosure of indicia of one of a plurality of operations available for performance on the first computer, indicia of one of a plurality of operations available for performance on the second computer and indicia of the one or more performed operations.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant recites the limitations "indicia of one of a plurality of operations available for performance on the first computer", "indicia of one of a plurality of operations available for performance on the second computer" and "indicia of the one or more performed operations" in claim 1. There does not appear to be a written description of the claimed limitation in the application as filed, for the reasons set forth in the objection to the specification.

11.   Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, in lines 13-19, (emphasis added)

"receiving the transmission at the second and third computers;

at the <u>first</u> computer, determining whether the <u>received indicia</u> corresponds to at least one of the first plurality of reactions, and if it does, performing an execution using the associated execution information of the one of the first plurality of reactions; and

at the <u>second</u> computer, determining whether the <u>received indicia</u> to at least one of the second plurality of reactions, and if it does, performing an execution using the associated execution information of the one of the second plurality of reactions."

It appears that the 'third computer' in line 13 should refer to the first computer. For the purpose of art rejection, it is interpreted as "receiving the transmission at the second and <u>first</u> computers" (emphasis added), as best understood and as it appears to be.

Claim 1 recites "the received indicia to at least one of" in line 17. There is insufficient antecedent basis for this limitation in the claim. For the purpose of art rejection, it is interpreted as "the received indicia <u>corresponds</u> to at least one of" (emphasis added), as best understood and as it appears to be.

Claim 1 recites "the first plurality of reactions" in line 17. There is insufficient antecedent basis for this limitation in the claim. For the purpose of art rejection, it is interpreted as "the first <u>set</u> of reactions" (emphasis added), as best understood and as it appears to be.

Claim 1 recites "the second plurality of reactions" in line 17. There is insufficient antecedent basis for this limitation in the claim. For the purpose of art rejection, it is interpreted as "the second <u>set</u> of reactions" (emphasis added), as best understood and as it appears to be.

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13.   Claims 1, 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Cobbaert et al (Pub. No. 2003/0079046).

Regarding claims 1-6, it is noted that broadly as disclosed, a reaction is an
operation in response to information. See application as filed, [0002].

As to claim 1, Cobbaert teaches a method (communication mechanism
employing continuations), comprising:

storing a first set of reactions of a first program (methods/functions B1, B2 of

program object B / program object Mary), wherein each reaction in the first set

comprises indicia of one of a plurality of operations available for performance

(methods/functions B1, B2 are defined for and performed by program object B when

invoked) ([0033], [0036]-[0040]), and execution information (argument, [0051])

associated with each of the identified operations;

a second set of reactions of a second program (methods/functions of further

program object), wherein each reaction in the second set comprises indicia of one of a

plurality of operations available for performance [it is noted that the further program

includes a third program (page 4, claims 3, 4), thus similar to the operation of program A

or program Mary, such methods/functions are performed by the further program object

when invoked] and execution information (argument) associated with each of the

identified operations;

performing one or more operations (method/function A1 of program object A) of a

first plurality of operations available for performance (methods/functions A1, A2 of

program object A, [0034], fig. 3);

in response to the performing, generating a transmission (SEND message,

including continuation id and type) comprising indicia of the one or more performed

operations (function get_age) and information operated on (age of object Mary) by

each of the one or more operations;

receiving the transmission at the second and the first programs (deliver message

to the further program which includes first program and third program) (0036, fig. 5);

at the first program, determining whether the received indicia corresponds to at least one of the first plurality of reactions (determine which continuation, [0007], [0018]), and if it does, performing an execution using the associated execution information (age parameter) of the one of the first plurality of reactions (execute function Mary_reply_age) ([0049]-[0052]); and

at the second program, determining whether the received indicia to at least one of the second plurality of reactions, and if it does, performing an execution using the associated execution information of the one of the second plurality of reactions [it is noted that the further program includes a third program (page 4, claims 3, 4), and thus operations on a third/differnt program similar to those of program A would have been inherent/obvious].

Cobbaert does not teach the first/second set of reactions of the first/second programs are stored at first/second computers, nor the one or more operations are performed at a third computer. However, Cobbaert teaches the programs reside in different execution environments ([0003]). It is known that different execution environments are typically implemented by different computers/platforms. Such examples may be found in a heterogeneous network. Therefore, it would have been obvious to implement the different execution environments by different computers in Cobbaert, ie, to locate first/second programs on first/second computers and perform the one or more operations at a third computer.

As to claim 2, Cobbaert teaches a method to be implemented by objects (program objects A, B, Mary, further) having a shared communication path (O. S., fig. 3), a representative object of the objects performing the method that comprises:

executing original operations (program object A) of different operation types (typed continuation) (methods/functions A1, A2 of program object A, [0034], fig. 3);

when original operations are executed, transmitting messages (message SEND) on the communication path (fig. 3) whereby the objects (program object Mary, further program) receive the messages, where the messages have a format (format specified by SEND message, fig. 5) shared by the objects, and where each message indicates

the operation type of its corresponding executed operation (continuation type, [0036]); and

when messages so transmitted from the objects are received, determining whether to react to each message based on each message's indicated operation type (determine which continuation, [0007], [0018]), and when determined to react to a given message, reacting by executing a reaction operation (execute function Mary_reply_age) ([0049]-[0052]) that is pre-associated with the message's indicated operation type (type 'AGE'), where each object has its own set of reaction operations (methods/functions defined for program object Mary) and associations between its reaction operations and at least some of the operation types (determine via continuation type).

While Cobbaert does not explicitly teach the associations are pre-registered, Cobbaert teaches the associations are pre-defined via constructors of messages (fig.s 3, 5 and denoting text) and class definitions ([0037], [0039], [0041]-[0044]). Class definition is a form of pre-registration (class data structure). Therefore, it would have been obvious to pre-register the associations in Cobbaert.

As to claim 4, Cobbaert teaches a message further indicates a parameter (age parameter) of the original operation (function A1 of program object A) that triggered the message, and wherein the reaction operation (function Mary_Reply_Age of program object Mary) triggered by the message uses as its own parameter the parameter included with the message that determined the execution of the reaction operation (type 'age', [0036]-[0047]).

14.   Claims 3, 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cobbaert et al as applied to claim 2 in view of Hao et al (U S Pat. 5,844,553).

As to claim 3, Hao teaches original operations of graphical user interface (window) events (window events), and types of graphical user interface events (input events such as button, motion, leaving events). Col. 3, lines 48-56; Col. 7, line 66 – col. 8, line 10. Therefore, it would have been obvious to include GUI events of various types into Cobbaert. One of ordinary skill in the art would have been motivated to

combine the teachings of Cobbaert and Hao because Hao uses the graphical user interface to provide program observation and control, and which would have provided Cobbaert with a more intuitive user interface.

As to claim 5, Cobbaert as modified teaches the communication path comprises a network chat channel (real-time collaboration window sessions, col. 7, lines 5-28).

As to claim 6, Cobbaert as modified teaches the objects comprise programs executing on different computer systems (110 as a third computer, 120 and 130 as first and second computers, fig. 2).

15.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 15, 2005

SUE LAO
PRIMARY EXAMINER